cells, comprising contacting the cells with an agent capable of inhibiting the interaction between CD40 ligand and the cells, in an amount effective to inhibit activation of the cells.] for treating atherosclerosis in a subject comprising the step of administering to said subject an antibody, or portion thereof, which binds specifically to a protein specifically bound by monoclonal antibody 5c8, produced by the hybridoma having ATCC Accession No. HB 10916.

102. The method according to claim 1, wherein said atherosclerosis is accelerated atherosclerosis associated with organ transplantation.

103. The method according to claim 1, wherein said antibody, or portion thereof, inhibits binding of CD40 ligand to CD40 on the surface of endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages, or dendritic cells in said subject.

104. The method according to claim 1, wherein said antibody is effective to inhibit transmigration of inflammatory cells across the barrier of endothelial cells in said subject.

105. The method according to claim 1, wherein said antibody is a monoclonal antibody or a polyclonal antibody.

106. The method according to claim 1, wherein said antibody is selected from the group consisting of: chimeric antibodies, primatized antibodies, humanized antibodies and antibodies which include a CDR region from a first human and an antibody scaffold from a second human.

107. The method according to claim 1, wherein said antibody is monoclonal antibody 5c8 which is produced by the hybridoma having ATCC Accession No. HB 10916.

108. The method according to claim 1, wherein said antibody is a humanized monoclonal antibody 5c8 or a primatized monoclonal antibody 5c8.

109. The method according to claim 1, wherein said portion of said antibody comprises a complementarity determining region of a light chain or a heavy chain.

110. The method according to claim 1, wherein said portion of said antibody comprises a variable region of a light chain or a heavy chain.

111. The method according to claim 1, wherein said portion of said antibody comprises a Fab, F(ab')2 or a single chain antibody.

112. The method according to claim 1, wherein said antibody, or portion thereof, is selected by a screening method, which comprises the steps of:

(a) isolating a sample of cells comprising endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(b) culturing said sample under conditions permitting activation of the CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(c) contacting said sample with:

(i) cells expressing a protein which is specifically recognized by monoclonal antibody 5c8 produced by the hybridoma having ATCC Accession No. HB 10916, or

(ii) a protein which is specifically recognized by monoclonal antibody 5c8 produced by the hybridoma having ATCC Accession No. HB 10916,

under conditions which permit activation of said CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(d) contacting said sample with an antibody, or portion thereof, under conditions which permit said antibody to inhibit activation of said CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells; and

(e) determining whether said antibody, or portion thereof, is capable of inhibiting activation of said CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells.

113. The method according to claim 112, wherein said sample of cells is isolated from a tissue.

114. The method according to claim 112, wherein said sample of cells is selected from the group consisting of: a cell line in culture, cells isolated from an animal and cells isolated from a body fluid.

115. The method according to claim 1, wherein said subject is a mammal.

116. The method according to claim 115, wherein said mammal is a human.

117. The method according to claim 1, wherein said antibody, or portion thereof, is administered to said subject by a parenteral route.

118. The method according to claim 117, wherein said parenteral route is selected from the group consisting of: intravenous, intravascular, intraarterial, subcutaneous, intramuscular, intratumor, intraperitoneal, intraventricular, intraepidural, oral, nasal, opthalmic, rectal, topical and inhalation routes.

119. The method according to claim 1, wherein said antibody, or portion thereof, is administered to said subject by sustained release administration.

120. The method according to claim 119, wherein said sustained release administration comprises depot injection of an erodible implant.

121. The method according to claim 1, wherein said antibody, or portion thereof, is administered to said subject at a dosage range of between about 0.01 and 200 mg/kg body weight of said subject.

122. The method according to claim 1, wherein said antibody, or portion thereof, is administered to said subject at a dosage range of between about 0.01 and 50 mg/kg body weight of said subject.

123. The method according to claim 1, wherein said antibody, or portion thereof, is administered to said subject at a dosage range of between about 1 and 30 mg/kg body weight of said subject.

124. The method according to any one of claims 121 to 123, wherein said antibody, or portion thereof, is administered to said subject at intervals ranging from each day to every other month.

125. The method according to any one of claims 121 to 123, wherein said antibody, or portion thereof, is administered to said subject daily for the first three days of treatment, after which the compound is administered every 3 weeks, with each administration being intravenously at 5 or 10 mg/kg body weight of said subject.

126. The method according to any one of claims 121 to 123, wherein said antibody, or portion thereof, is administered to said subject daily intravenously at a dosage of 5 mg/kg body weight of said subject for the first three days of treatment, after which the antibody, or portion thereof, is administered subcutaneously or intramuscularly every week at a dosage of 10 mg/kg of said subject.

SUBJECT CONT.

127. The method according to any one of claims 121 to 123, wherein a single dose of said antibody, or portion thereof, is administered to said subject parenterally at 20 mg/kg body weight of said subject, followed by administration of the antibody, or portion thereof, subcutaneously or intramuscularly every week at a dosage of 10 mg/kg per subject.

128. The method according to any one of claims 121 to 123, wherein said antibody or portion thereof is administered with a gene therapy vector or a therapeutic agent.

129. The method according to claim 128, wherein said therapeutic agent is an antigenic pharmaceutical or blood product.